THE MARBLE HILL PRESS

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MARBLE HILL - - MISSOURI

A laugh is the only crop that fools can raise successfully.

The Standard Oil trust will not make ice or anything else but money.

Out in Missouri there is a 24-year-old woman who is the mother of twelve children.

Enthusiasm is well enough for a picnic, but it takes endurance to saw wood successfully.

It is extremely easy for a woman to discover that she is abused by an incompatible husband.

One of the chief delights of feminine nature is to do something that will startle some particular man.

Many a man has an easy job simply because his employers are aware that he is not reliable in emergencies.

If Bourke Cockran marries the daughter of an English lord our foreign account will be partially evened up.

A bloomer girl in Groton, N. Y., last week saved her escort from drowning and the poor fellow is still in his misery.

China has sent an imperial commercial ambassador to this country. This sounds like a high-tone name for a drummer.

The amount a man can perform ought often to be judged by cutting in two what he can plan.

A St. Paul girl has inherited $3,000,000, and Minneapolis is looking to one of its young men to see that it doesn't get any the worst of the deal.

William K. Vanderbilt refused to obey a summons to serve as a juror. It is thought, however, that Mr. Vanderbilt would condescend to act as a jury.

A Chicago girl at present sojourning near Philadelphia can say nothing but "nit." That, however, is the most a Chicago girl needs to say in that region.

A young man was arrested in Chicago the other day for throwing away money. If every man guilty of this offense were treated likewise the vote would be very slim this year.

The fact that a girl who is blind, deaf and without sense of taste or smell has passed the Harvard examination with credit may be taken as an indication that higher education is senseless.

The war department has put in dovecotes and it may not be a great while before there will be a demand for the government to maintain a stock of rabbits with well-developed left hind feet.

The wind was blowing seventy-five miles an hour at New York one day last week. Gotham is evidently better at raising the wind than it used to be in the days when monument funds were on the tapis.

"Fresh eggs from China," is a sign which is being displayed in some of the Chinese stores of Chicago. The celestials have evidently got a thoroughly Americanized conception of the term "fresh eggs."

It is now reported that Actor Aubrey Boucicault will quit the stage, having successfully married his million-dollar bride. This is more satisfactory to her friends than the original statement that he would remain on the stage and she would join him in artistic avocations. She will also be likely to hold on to her million somewhat longer this way.

A double golden wedding is certainly an unusual event. William R. Higbee of Bridgeport, Conn., and George R. Cornwall of Port Chester, N. Y., were old school friends and married on the same day, Sept. 22, 1846. Yesterday Mr. and Mrs. Cornwall went over to Bridgeport and celebrated a joint golden wedding with Mr. and Mrs. Higbee. All four are in excellent health and the two "young couples" enjoyed the festivities greatly.

An amusing coincidence has occurred in Passaic, N. J. Two brothers, Alfred and Radcliffe Wells, have been secretly wooing two maidens of that locality, and fearing opposition in each case, neither said a word to the other of their intentions, but both determined upon a runaway match and a secret wedding. Each carried out their intention on the same night, and meeting the same day each was moved to an avowal of what they had done, and their mutual astonishment can be better imagined than described.

THE NEW SUBMARINE WONDER FOR OUR NAVY.

If the marvelous little submarine torpedo boat which the United States government has nearly finished at Baltimore does all the astonishing things the navy experts promise, she will be in large measure a real fulfilment of the dreams of Jules Verne in his masterpiece of fiction—"Twenty Thousand Leagues Under the Sea."

This is the only new war vessel ever built by our government upon which the longing eyes of ambitious naval officers were not turned. It is the first time the navy department has not been pestered by requests for assignments to duty on a new ship. And the reason is that the new boat is looked upon as a very promising submarine coffin for the first crew that ventures out in her.

Much of the warfare of the next century must be conducted by submarine fighting machines, and this extraordinary craft will, it is believed, solve the whole problem of under water war, to which inventors and naval experts have for years given such an incredible amount of study. This experiment, if successful, may render the great navies of the world powerless.

The new boat is the object of rapt attention from the naval nations of the world, who have learned in these later years to look to America for instruction in the science of naval building. There is much speculation and uncertainty, however, even among our own naval authorities as to whether the new craft will, upon practical trial, do all that her inventor, J. P. Holland, claims for her. Experiments with submarine war vessels heretofore have been so disastrous, and the manipulation of this strange craft is so different from anything hitherto taught in naval institutions, that the question of manning her is causing the navy department a world of trouble.

The Wonder of the World.

The craft is a wonder. It is nothing more nor less than a huge steel fish, with lungs capable of holding enormous quantities of fresh air, and possessing a single great eye for surveying the surface of the ocean on all sides while the vessel itself is submerged and invisible.

It has fins for diving and steering, and its vitality is furnished by steam and electricity.

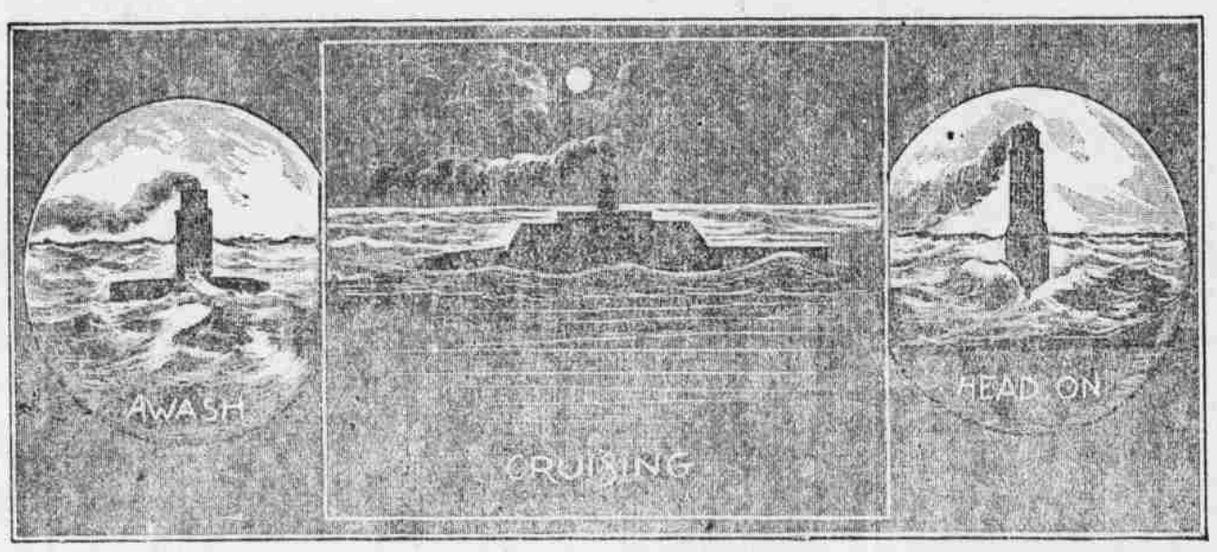
The boat is practically the Nautilus of Jules Verne reduced from dream to reality. It is cigar shaped, pointed at both ends; 80 feet long, 11 feet in diameter, and with a displacement of 113 tons when floating. Submerged it displaces 138 tons. Under ordinary circumstances it runs on the surface like an ordinary torpedo boat, with a speed of sixteen knots an hour. At will it can be lowered just enough to be under water, save for a turret of Harveyized nickel-steel, which is surmounted by a chimney. The armour of the turret is eight inches thick, and proof against rapid fire guns. The chimney contains a tube by means of which the air inside of the boat is kept fresh.

Entirely Safe from Attack.

In this half submerged condition the boat is comparatively safe from any sort of attack. It offers so small a target that to hit it would be extremely difficult. At any time it can sink entirely out of sight at a moment's notice.

The chimney and air tube are withdrawn into the interior in a dozen seconds, the opening is hermetically closed and the craft dives. It descends by taking water into compartments intended for that purpose, thus changing its specific gravity, and also by inclining horizontal rudders so as to cause the nose of the steel fish to turn downward. The depth attained is regulated automatically, the limit of safety being about 66 feet. At a much lower level the pressure of water would crush the boat.

This submarine marvel has a double steel shell, and the space between the two coats is occupied by water ballast, coal bunkers and compressed air tanks. The interior of the craft is almost wholly filled with machinery. There is no space for officers or crew to sleep or eat. Food must be brought along in cooked and compact shape, to be consumed in such fashion as may be. Life on this ship, if ship she is, will not be a thing of joy. Much of the interior space is taken up by electric batteries and accumulators. Electric apparatus requires a good deal of room, but it makes no smoke and needs neither fuel nor air. There are also steam engines run by petroleum, and tubular boilers consisting of a labyrinth of pipes. The steam engines generate the electricity that is stored in the accumulators.



Traveling on the Water's Surface.

Suppose that the boat is traveling on the surface of the water, at a sixteen knot gait, when the pilot, looking out through a glass window in the turret, sees a hostile warship coming. The warship is of such vastly greater size that he spies it long before the enemy's lookout can possibly see the diving craft. He touches a button on an electric switchboard at his side, which transmits an order to the engine room. Without half a minute's delay the boat sinks until her superstructure is just awash, so that only turret and chimney remain above the surface. The pilot is stil able to continue his inspection of the warship through the window aforesaid. If the vessel comes near, and he thinks he is in danger from the big rifled guns, he touches another button on the switchboard, and in one minute by the watch the submarine craft is safe from all danger or pursuit, eighteen feet below the waves.

The instant the order is given a bit of mechanism is set in operation by which the chimney and air tube are telescopically withdrawn. Water flows into the empty compartments, and the horizontal rudders are inclined for diving. An indicator registers the depth, which is so regulated by an automatic device that the craft cannot descend below the safety limit. The steering is done by compass when under water. The interior of the submarine vessel is lighted by electricity, with incandescent lampa.

So long as the boat travels on the surface it is run by its triple expansion steam engines, which, small but powerful, actuate twin screws at the stern. When the craft has been wholly submerged these engines are stopped, but there is enough steam at high pressure left in the boilers to propel the vessel for a considerable time longer. When it is on the point of exhaustion the propellers are connected with the electric motors, which will run the boat for sixteen hours.

Makes Its Own Electricity.

The vessel makes its own electricity by means of its steam engines and stores it in its accumulators. This point gives to the Holland boat an immense advantage over most of the foreign submarine vessels, which depend wholly on electricity for motive power, and are obliged to go to the shore at short intervals for the purpose of refilling their storage batteries.

When the boat dives valves are opened from the tanks, which contain air condensed under a pressure of 2,000 pounds to the square inch. By this means the atmosphere inside of the submarine vessel is kept good for half a dozen hours. In case it gets close and bad, the foul air may be pumped out. It is not necessary for the craft to come to the surface even when the air stored in her reservoirs has been exhausted. In such a case a two-inch hosepipe is unwound from the reel, its free end being attached to a float, which, when released, rises to the surface of the water, carrying with it the hose. Through this fresh air is pumped into the vessel, and the storage tanks are refilled under pressure. Thus it will be seen that the boat is able to stay under water almost indefinitely not being obliged to come to the surface to take breath. Three days' provisions are carried for the persons on board, four officers and eight machinists.

Its Organ of Vision.

The most wonderful thing about this boat, however, is the organ of vision for seeing while submerged. It has a single huge eye, by means of which it is able to survey the ocean's surface, though itself sunk some fathoms deep, and invisible. The vessel does not need to rise above the waves in order that the pilot may perceive "where he is at." It comes up merely to within a few feet of the surface, and a long tube is elevated vertically out of the water. The tube contains a single arrangement of lenses and mirrors. The lower end of it descends into the steering room of the boat, where there is a pivoted circular table covered with a white cloth. The device is an application of the familiar camera lucida. By moving the pivot table this way and that the pilot can scan the surface of the ocean for miles around. Every sail, every ripple, is as clear to his eye as if he were on the deck of a ship in the open air above.

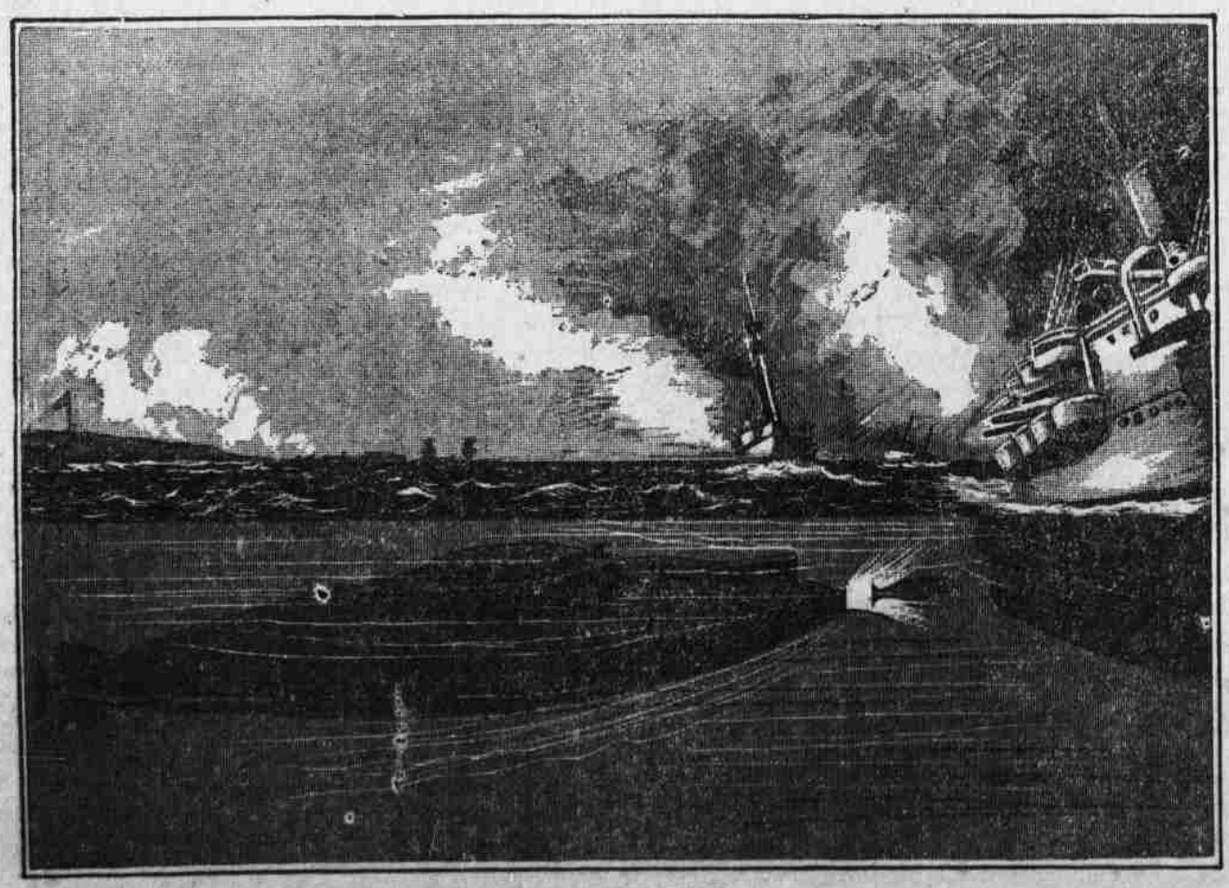
In her bow the boat has two torpedo tubes for the discharge of automatic torpedoes of the Whitehead or Howell variety. She carries five of these torpedoes, which are projected by compressed air. Such a torpedo is a hollow, cigar shaped receptacle, much like a fish, carrying in its front end 200 pounds of gun cotton. After being discharged from the tube it runs itself, being driven by a screw, with compressed air for motive power. It may be shot with accuracy at a mark 200 yards away, and it will run 1,000 yards or more, exploding on impact.

Can Destroy Strongest Battleships.

Let one of these fearful projectiles strike the strongest battleship, and the proud vessel of steel and iron, a floating mass of machinery that has cost $4,000,000 to construct, is transformed in a moment into an iron coffin, carrying officers and crew to the bottom. Having delivered the fatal blow, the submarine boat glides away, to come up presently near the surface, and with the aid of her camera lucida to look around upon the scene of the destruction she has caused—herself at the same time invisible and safe from pursuit. Such a craft as the Holland boat would never try to attach a torpedo to the bottom of a ship. She picks out a vessel for attack and makes for her, occasionally coming near the surface just long enough to permit her commander to make sure of his course.

The Holland boat is able to keep at sea in bad weather. Its radius of action, traveling on the surface, is 1,000 miles; submerged, it can go sixty miles. Its speed under water is eight knots and it can be perfectly controlled. Special devices provide against every conceivable accident. In case it is desired to check the downward movement of the boat quickly, a touch on a button connects a compartment of water at the bow with a tank of compressed air. The expanding air drives the water out of the compartment, thus lightening the boat. If the submarine vessel gets stuck in the mud at the bottom, or for some other reason is not able to rise, officers and crew will put on diving suits and escape through a hatchway.

The boat is to cost $150,000. If it proves a success, two others are to be built. This one, Mr. Holland says, is not as big as it ought to be, but its size was limited by the appropriation. As soon as it is finished, it will be taken for a trial trip down the Chesapeake.



THE NEW TORPEDO BOAT.

Louis Agassiz.

The early years of Agassiz read like a fairy tale of incredible achievement. His bent toward natural science showed itself almost in infancy and grew with his growth. At fourteen we find him sighing for a list of unattainable books—D'Anville, Ritter, and Italian dictionary, a Strabo in Greek, Manaert and Thiersch; and also the works of Malte-Brun and Seyfert. Failing to get these he copied whole volumes with the assistance of his brother, among others Lamarck's Animaux sans Vertebres. His parents, who had destined him to a commercial career, were with difficulty induced to consent to his studying medicine. At twenty-three he was not only a doctor of medicine, but of philosophy as well, and the author of a work on Brazilian fishes, which won for him a name among the scientists of Europe and the personal intimacy of Cuvier and Humboldt. At twenty-five he began his career as a lecturer and instructor, and at once demonstrated that extraordinary ability as a teacher and that gift of inspiring enthusiasm in his subject which were such marked characteristics of his later years. In 1843 he made his first visit to America, and two years later accepted that professorship at Harvard which determined the work of his remaining life.